

***Bertia setzeri*, a New Species of Land Snail from Vietnam
(Gastropoda: Stylommatophora: Dyakiidae)**

Nguyen Ngoc Thach

Ex-Research Associate, Oceanographic Institute, Nha Trang, Vietnam

267 Thong Nhat Street, Nha Trang, Vietnam

kurodashvietnam@yahoo.com

ABSTRACT A new species of genus *Bertia* Ancey, 1887 is described from Khánh Hòa, Central Vietnam and compared to three species of this genus: *Bertia cambojiensis* (Reeve, 1860), *Bertia pergrandis* (Smith, 1893) and *Bertia brookei* (Adams & Reeve, 1848).

KEYWORDS Mollusca, Gastropoda, Stylommatophora, Dyakiidae, *Bertia*, Nha Trang, Khánh Vĩnh, Khánh Hòa, Bình Định, Central Vietnam, land snail, new.

INTRODUCTION: *Bertia* is a genus of the family Dyakiidae. At the end of 2014, an unknown land snail was found that was not included in the works by Schileyko (2011). It belongs to the genus *Bertia* and is described herein.

Abbreviations:

ANSP = Academy of Natural Sciences, Philadelphia, USA

NHMUK = National Museum of Natural History, London, England

NNT = Collection N.N.Thach

SYSTEMATICS:

Class Gastropoda Cuvier, 1797

Order Stylommatophora Schmidt, 1855

Family: Dyakiidae Gude & Woodward, 1921

Genus: *Bertia* Ancey, 1887

Type species: *Helix cambojiensis* Reeve, 1860

***Bertia setzeri* n. sp.**

Figure 1, Images 1-4 and 17-20

Diagnosis: The new species is characterized by completely black base with the shell width much larger than its height.

Description: Shell large (70-75 mm in average adult size, reaching 78.6 mm in width) heliciform sinistral much wider than high with 5.5 whorls. Spire low and inflated, sutures deep. Body whorl swollen, periphery rounded with a moderately strong spiral rib. Sculpture consists of many broad radial ribs at body whorl (each rib is a series of 3-4 riblets) and numerous small granules formed by intersections of fine radial and spiral ribs at penultimate whorl. Aperture wide obliquely ovate and bluish at upper part with external pattern visible within and darker at lower part, outer lip wide thin and not angulated. Base inflated, strongly convex and sculptured with numerous radial ribs. Umbilicus broad open and deep, periostracum thin and straw-colored. Color red-brown at dorsal side and completely black at ventral side. Illustrated holotype was damaged at periphery.

Type material: Holotype 78.6 mm wide in ANSP (Fig.1, Images 1-4). Paratype 1: 75 mm wide in NNT (Fig. 1, Images 17-20). Paratype 2: 73.8 mm wide and Paratype 3: 76.2 mm wide in Ex-NNT (not illustrated).

Type locality: At the border of Khánh Vĩnh District and Nha Trang outskirts, Khánh Hòa Province, Central Vietnam.

Range and habitat: Known only from the type locality. The specimens were found among leaf litter.

Etymology: This new species was named in honor of Steve Setzer of the United States for his interest in the terrestrial snails of Vietnam.

DISCUSSION:

• *Bertia setzeri* n.sp. is close to *Bertia cambojiensis* (Reeve, 1860) (Fig. 1, Images 5-8) but differs in shell width much larger than shell height, completely black base, lack of dark brown spiral band along suture of each whorl

and other characters that are summarized in Table 1.

• *Bertia setzeri* is close to *Bertia pergrandis* (Smith, 1893) (Fig. 1, Images 9-12) but differing in completely black base, convex (not angulate) outer lip and other characters that are summarized in Table 1.

• *Bertia setzeri* is close to *Bertia brookei* (Adams & Reeve, 1848) (Fig.1, Images 13-16) but differs in completely black base, not concave outer lip at umbilical area, vivid yellow (not grayish brown) foot, black (not orange-colored) eyes of the live animal and other characters that are summarized in Table 1.

Table 1: Comparison of *Bertia setzeri* vs *B. cambojiensis*, *B. pergrandis* & *B. brookei*

	<i>Bertia setzeri</i>	<i>Bertia cambojiensis</i>	<i>Bertia pergrandis</i>	<i>Bertia brookei</i>
Umbilicus	Broad, open and deep	Moderately broad, open and shallow	Broad, widely open and deep	Mostly covered by columella, shallow
Umbilical area	Black	Black or red-brown	White	Red-brown
Base color	Completely black	Black or red-brown encircled by white band	White, encircled by red-brown band	Completely red-brown
Peripheral rib	Moderately strong	Obsolete	Very strong	Sharp, very strong
Locality	Vietnam (Khánh Hòa Province)	Cambodia	Vietnam (Bình Định Province)	Indonesia, Malaysia

ACKNOWLEDGEMENTS:

I want to thank the members of my team who worked diligently at the end of 2014 to collect land snails of Central Vietnam for scientific study. I am also grateful to Prof. Fred Naggs and Dr. Jonathan Ablett of London National Museum of Natural History for the photos of *Bertia cambojiensis* and *Bertia pergrandis* stored at this Museum, to Bernard Dupont for the photos of *Bertia brookei* and to Christa Hemmen for supplying the original description of *Bertia pergrandis*. Thanks are also due to the reviewers for useful comments.

REFERENCES:

- Reeve, L. 1860. On two new species of Shells from Cambojia. The Annals and magazine of Natural History, London, Vol. VI, Third Series, pp 203-204 & 455.
- Schileyko, A.A. 2011. Check-list of land pulmonate molluscs of Vietnam (Gastropoda: Stymmatophora): Ruthenica, 21(1): 1-68.
- Smith, E.A. 1893. Descriptions of six new species of land-shells from Annam. Proceedings of the Malacological Society of London, Vol. 1, pp 10-11.

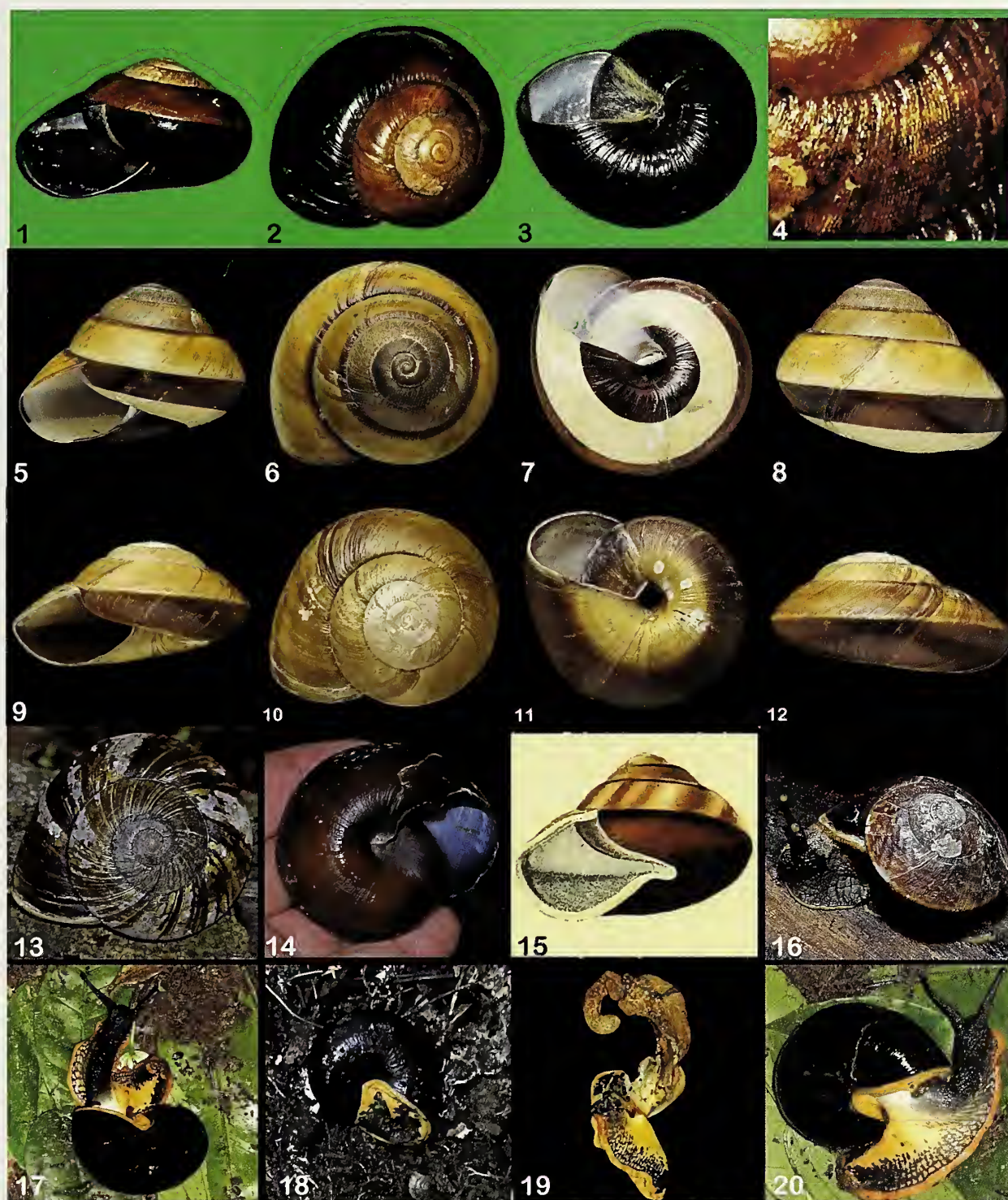


Figure 1. Images 1-4: *Bertia sertzeri* n.sp., Khánh Hòa, Vietnam, Holotype 78.6 mm wide, Image No. 4 shows sculpture at penultimate whorl with many granules, ANSP; Images 5-8: *Bertia cambojiensis*, Syntype at NHMUK for comparison; Images 9-12: *Bertia pergrandis*, Syntype at NHMUK for comparison; Images 13-16: *Bertia brookei* for comparison, Image Nos. 13, 14 and 16 by Bernard Dupont, Image No. 15 by Reeve; Images 17-20: *Bertia sertzeri* n.sp., Paratype, 75mm wide, with animal when alive, Image No. 19 shows internal organs of the snail, NNT.